

POLYMORPHISMS IN THE IL4R α GENE (Accession No. AC004525)

TGTGAGCTAC	TGTGTCTGGC	CTGAATAATA	AAATTTAAAA	CAATTTTTTCA	
AAAATTCACC	ATGAGGTCTC	ACTATATTCC	CTAGGCTGGT	CTCAAACCCC	30100
TGGACTCCAA	GTGATCCACC	CCACCTTCCC	GAGTAGCTGG	GACTIONAGAT	
GCACACCATT	GCACCCAATA	GAGCAATACG	TTTCTGTTCT	TTGTAAATTA	30200
CCTGCTCTAA	GGTATTTTTG	TTATAGCAGC	CTATATGGAC	TAAGCTGACT	
TGTAACGTTA	CTTGAGACTT	TAAAGTGTTT	CGGTCACCTG	TGGAGGGCTC	30300
TGTCTGTGTT	AGCTCATTTA	ATCCCCACAA	CACCTCAATC	AGATGGGGCT	
ATTCTTAGTC	CCACTTTATA	GATAAGGAAA	CTGAGGCATG	GAAGCACAGC	30400
TTGCTCAAGG	TTCACATCTA	GTCAGTGACA	GAGCAGGTAT	TTAAACCTCA	
GGAAATAATC	AGAGAAACAT	GTGTAGAGGG	TTGTCCAAGG	AAGGCCACAT	30500
CCAGAAGCAT	CTCCCAGGAC	AGTTGTTGTG	TAGCTCACCC	TCTGGACTTT	
GTGGGTCTGG	GTGTTGTTTC	ATGATTATAG	AGAGAGCTCT	GTGAACGTGG	30600
AGGACCTGTT	GTCGGCAGAG	ACACAAATGG	CCAGGGCATG	GCTGGGCAGC	
CGCAGTGCGT	CAGGCCTGTA	ATCCCAGCAC	TTGAGAAGA	CCAGAGGGGC	30700
AGATCATGAG	GTCAGAAGTT	CAAGACCAGC	CTGGCCAACA	TGGTGAAACC	
CCGTCTCTAC	TAAAAATACA	AAAATTAGCC	AGGTGTGGTG	GTGGGCACCT	30800
GTAATCCCAG	CTACTCGGGA	GGCTGAGGCA	GAAGAATCGC	TTGAACCCGG	
GAGGTGGAGG	TTGCAGTGAG	CTGAGATTGC	ACCACTGCAC	TCCAGCCTTG	30900
		G			
GAGACAGAGC	GAGACTCTGT	CTCGGAAAAA	CAAACAAACA	AGCAAACAAA	
CAAACAAATA	AATGGCCAGG	GCAGGGGAGG	GTTGCATATT	GAATAAGATG	31000
AGCTCTGCTG	GAAGCACAGG	TCAGCACTAA	CCTGCTTCCT	CTCTCTCTGC	
AGGTGCCTTG	GCATCTCCCA	ATGGGGTGGC	TTTGCTCTGG	GCTCCTGTTC	31100
[exon 3: 31071..					
CCTGTGAGCT	GCCTGGTCCT	GCTGCAGGTG	GCAAGCTCTG	GTAAGTCACC	
..31140]					
ACTTCTCAAT	CATTCAATTTG	TTGGCTATTA	ATGGCGTGCC	AGGGTCCTGC	31200
AGTATGTCAC	CTGGCCTTAT	GGAGATTACA	CTGCAGTGGG	AGGGGACAGC	
CAATGACAAG	TGGCCCTGAT	TATCAGTAAA	TTCTAAAGAT	TGTTAGAAAG	31300
TGATGGGAGC	CGGGTGCAGT	GGCTCACACC	TGTAATCCCA	GCACTTCAGG	
AGGCCGAGGC	AGGAGGATCG	CTTGAGCCCA	GGAGTTCGAG	GTCAGCTTGG	31400
GCAACATAGG	GAGACCTTGT	CTCTACAAAT	AATAAAATAT	TAGCCAGGTG	
TGGCAGTGCA	CGCCTGTAGC	CCCAGCTACT	CAGGAGGCCG	AGGTGGGAGG	31500
ATCCCTTGAA	CTCAGGAGGT	CAAGGCTGCA	GTGAACTGTG	ATCGCGCCAC	
TCCACTCCAG	CCTGCGTGAG	AAAGTGAGAC	CCTGTCAAAA	AAAAAGAGAA	31600
GGTGATGGGG	AAAGAACACA	GAACAGCATA	AGAGGGGGTT	GGGAAGCTG	
GGTGGAGTGG	GGGGGATTGC	AGTTGAAAGT	AGGGAAGTCA	GGGAAGGCCT	31700
CATTGAGCTG	ACTTGGAGGA	AGCGGGAACC	GTGCAGATGT	CTGGGGAAGG	
CTCATTCTTG	GCAGAGAGGC	CCTGCACTGA	GCCTGGCGGG	AGGGTTGAGC	31800
ACAGGAGGGA	ATGTGGTGGA	GGAGAGTGAG	CAGCAGGAGG	GAGCAGTGAA	
GGTCAGCAAG	GTGACAGAGT	GGCTGAATCA	AAAAAGACCT	TGCAGTGTTT	31900
GAGCAGAGGA	TCCATATCAT	CCATTATGTT	CCAAAGGACT	CTTCAGGATG	
CCGTGTGGAG	AAAGGAAGAG	GGTGGAAGCC	AGGAGGTCTG	GAGGGAGGTC	32000
TGGAGTGGAG	GAGATGAGAG	GCTCCGGATC	CCTCTGGGAG	GTAGATTTGA	
GGACAGATTG	GAATTGAGGT	GAAAGACAGA	GAAAGAGAAG	TGGCCAGGAT	32100
GACTCCAAGA	TTTCTGACCT	AAACTACTGG	GAAGGACGCG	GTTGTCAATTT	
CTGAAATGCA	GAAGGATGCC	AGAAGAGAAG	GTAATTTGGG	GAGGGGCGGG	32200
AATCAGGAGT	TAGTTTTGGA	CATGAGATAA	GCTTGGAATA	TTTATTTGCT	
ATCTAAGACA	GTCCTTAAC	ATGGTAAGCC	CTTATGCAAG	TTGTTGTCAG	32300
CTGAGATGGG	CGTGGCACTG	AGCATGGGAG	CATGGAGGCG	CCTGAGTGGT	
CTCATGCTCA	GGTGGTTTAG	CAAACCTCAGT	GTACATCCTG	CCAATTCAG	32400

FIGURE 1A

TCCTGCCATG	GCCACTGACA	AGCTAGGAGG	GCGCTGAAAG	GAGAAGGACC	
CCGATGTCTC	CTCCAGCCCA	TCCATCTCCT	CTCTCCCAT	GGCCAAACCC	32500
AACCGGAAAC	TAAAGGCCAA	GGGTACCCGG	TGATGAAGAC	TGTGGTATCA	
GCCTCCTGAG	CACAGAGAGG	GCAGAAAGGG	GTGGAGACAA	AGAGGGGCGC	32600
AGATAGTGGG	CAAATGGGGA	AGTGGCACTT	CCCCTAGCTC	GAGGGCAGAG	
GCTTGGTGTG	ATGGAATGGC	ACTCCTTAAA	CTGCTACATA	TTTTCCCTTT	32700
AATTTGGCCA	AGAACAAGTT	GTCAAGTTTG	TGTGAGATAA	AGGTGCACTT	
GGTTCGTTCT	TGTCTAATGG	CCCCCGCACC	CATGGGTATT	TCTTCAGCTT	32800
CCACAGTCAT	CCCGACACTA	GCTGGGAAGC	TCCAGCAGCC	CTGGTCCTGG	
CCCCAGCTCT	GTGGGCGCTG	GCCCTCAACT	TTGCCTGCAC	TGTGCTTTTG	32900
TGCTATTCCC	CTTGGTCCTG	TTTGGGTGCA	AGTCCCCCTC	ACGCATTGAG	
T					
TTCTTGGGCC	GCTCAGGCTG	CTCCTGTGTC	TCCCCAGGGA	ACATGAAGGT	33000
	T [exon 4: 32988..				
CTTGCAGGAG	CCCACCTGCG	TCTCCGACTA	CATGAGCATC	TCTACTTGCG	
AGTGGAAGAT	GAATGGTCCC	ACCAATTGCA	GCACCGAGCT	CCGCCTGTTG	33100
TACCAGCTGG	TTTTTCTGCT	CTCCGAGTAA	GCCTGCGCTG	GAGCTGGAGG	
	..33126]		C		
TTTGGGGAGG	TTGTGCCCAA	AGGGTTTGCC	CCAAGAGTGA	GCTGGGTCCA	33200
GGTGGTGCGC	TGGAGTGCAG	GATGCTGAGT	ATGGTTTGCT	GCTGTTTATA	
TGGTGTTAGA	GGGGAGGTCC	CATCTCCAGG	GACATGTTAT	GTAAGATACA	33300
GTGGAGCGCA	TGGTGGGAGT	GTTGGTCCAC	GTGGCACATG	GATACGGCTG	
GAATACTGGA	CTAGACCAGC	AGTTCTCACA	CTTTTTTGGTC	TCAGGACCCT	33400
TTTTTACACT	TAAAAATGAG	TGAGGACCCA	AAGGGCTTTG	GTGTAGGTAA	
CACATCATTC	TATGTTTACC	TAATTAGAAC	TTGCAATGAA	GAAATGGTGT	33500
AATTTTAAA	AAATTAAAAC	AATTAATAAT	TTTTTTTCTT	ACTGAAATGG	
AGGTCTCACT	GTGTTGCCCA	GGCTGCTCTC	AAACTCCTGG	GCTCCAGTGA	33600
TCCTCCTGCC	TCCGCCTCCC	AAAGTGCTGG	GATTACAAGC	GTGAGCCGCT	
GTATCCGGCC	CAAAATGGAG	AAATTTTAAG	TCCCAACAAC	ATGCAAGCCC	33700
GCATTCAACA	AATCTTCAGA	TCAATTACAT	GATCACAGGT	CATGTAGCCT	
CTAGAAAATT	CCACTGTACG	CCAGTGAGAG	AGAGTGAAAA	GGCAAATAAC	33800
GTCCCTGTAT	TATGATGAAA	AGAGTTTAC	CTGGTGGGCC	CAGACACAC	
TTTGAGAACC	ACTGGACTAG	ACCCTTGATT	GAGGAGTACG	GTGTTGAGAG	33900
TGGAGTCCTC	TGTGATGGTG	GATGGACCAG	GACACATGGC	ATAGGAGTCA	
GGTGGTTCCC	TGGGCTACTC	CATGGTGCAC	AGGATGCTTC	GTTACACTGG	34000
TGCCCAGGAC	ATAATCACGT	ACACAAGACA	CACAGTTACG	GGCAGACTG	
GGGATATACG	GCACACCAGC	ATGCAGCGTT	CACCAGTAAA	GCTGGTATTC	34100
CATGATTATT	CTAAGGTAGA	TGGGCTGTGC	TTTGTTTCCA	TTGGCTTAGT	
CCAGGGATTG	GCAAACATATG	GCCCGTGAGC	CAAATCCGGC	CCACTGCTTG	34200
TTTTTGTAAG	TAAAGTTTTA	TTGGAACACA	CTGGCTGCTG	TAGTTGTAAC	
AGAAACTGCA	TGGCCCTCCT	TTATGTTTTT	TGTTTGTTTG	TTTGTTTGTT	34300
TGTTTTCTTT	GAGACAGAGT	TTCGCTCTTG	TTGCCCAGGC	TGGAGTGCAG	
TGGCACAAATC	TCGGCTCACT	GCAACCTCTG	CCTCCCAGGT	TCAAGCGATT	34400
CTCCTGTCTC	AGCCTCCCGA	GTAGTTGGGA	TTAATGGTGC	CTGCCACCAC	
ACCCGGCTAA	TTTTTCGTAT	TTTTAGTAGA	GACCGGTTTT	CATCATGTTG	34500
GCCAAGCTGG	TCTCGAACTC	CTGAACTCAG	GTGATCCACC	CGCCTCAGCG	
TCCCAAAGTG	CTGGGATTAC	AGGCATGAGC	CACTGAGCCC	GGCCTCCTCC	34600
TTTATCTTAA	TTGAAATAAT	TCAGAAATGG	AAAGTCAAAT	ACTGCATGTT	
CTCACTTATA	AGTAAGAGTT	AAATAATGTG	TACACATGGG	CATTATTCCA	34700
TGTACCATGG	AATAACAGAC	ATTGAAGACT	TGGGAGGGTG	GGAGAGGGGT	
GAAGGAAGAG	AAGTTACTTA	ATGGGCATAG	TGTACACCAT	TTGGGTGACG	34800
GACCCACCAG	AACCCACAGC	TTCACCACTA	GGCAGCATAT	CCAGTGAGAA	
CAGATCTGAG	GCTTGCCATC	AAAATTGCAC	TTGTAAGGCC	GGGCACTGTG	34900
GTGGCTCGCG	GCTGTAATCC	CAGCCCTTTG	GGAGGCCGAG	GTGGGCAGAT	

FIGURE 1B

3/15

CACTTGAGGT	CAGGAGTTCG	AGACCGGCCT	GGCCAACATG	GTGAAGCTCC	35000
ATCTCTACTA	AAAATACAAC	AATTAAGTGG	GTGTAGTGGC	GCACACCTGT	
AATCCAGCT	ACTAGGGAGG	CTGAGGCGGG	AGAATTGCTT	GAGCCCAGGA	35100
GGTGGAGGTT	GCAGTGAGCC	GAGATCACAT	CACTGTACTC	TAGCCTGGGT	
GACAGTGAGA	CTTTGTCTCA	GGAAAAAAAA	ACAAAAACAA	AAAAACAAAA	35200
ACTCGTACCC	CCTAAATTTA	TACAAATAAC	CAAAAAAAAA	AAAAAAAAAAG	
GAAATTGTGT	GGCCTTTGAA	GTCCAAAATA	TTAACTATCT	GGCCTGTTAC	35300
AGAAAAAGTT	TGCAGACCCC	TGGCCTAGCC	CGTGAGATGT	GGGTTGGCTG	
TTAAGGTGGA	ACATTGGAAT	TATCTTACGA	TGGCCAAACT	GTGCGATGCA	35400
GAGCTTATGT	TGTTCTAAAT	TAATTAGTGC	CACCGGTTCT	TCCCTTTTCAT	
GGGCTTTTCA	GAACAAGCTA	AGTCCCAGGA	CCAGGGCCGG	CAGCTAGGCA	35500
GGTGTGAGGA	GCATCCTTGG	TGCATGTGGT	AAGAGGCTGT	GGCCAGCAAG	
AGAGGCAACC	CTAGTCGGCT	GCCCCAGCAC	ACCCTGGCCG	CTCCCAAGCC	35600
CCCAGATCTG	TCCTCACATC	CGTGATCGGG	AAGCTGGAAG	AGTCTGATGC	
GGTTCCTGGA	GGCATGTCCC	GGACACAGCT	GTGGGGCCCA	GCCAGCCTAC	35700
AGGTGACCAG	CCTAACCCAG	CCCCTGTGTC	TGCAGAGCCC	ACACGTGTAT	

G

[exon 5: 35736..

CCCTGAGAAC	AACGGAGGCG	CGGGGTGCGT	GTGCCACCTG	CTCATGGATG	35800
	T	A			
ACGTGGTCAG	TGCGGATAAC	TATACACTGG	ACCTGTGGGC	TGGGCAGCAG	
	C				
CTGCTGTGGA	AGGGCTCCTT	CAAGCCCAGC	GAGCATGGTG	AGCAGGGCGG	35900
		..35887]			
AGTGCGGCAG	GGGTGGCTGG	GTGTGTTCCC	ACAGCTGCCT	GGGCTGAGGG	
T				T	
TGGGGTGGGC	AGGGGAGGAG	GTGGGGTCAT	AGCAACAGCA	GGAGGAAGCC	36000
A					
GCCTGTATTT	TCCCAAATCT	GATGGGATTC	CTGCCCCTGC	CTGGGCCTCA	
GTCCTCCCAC	CTTTGAAACG	GAGCTGGTCG	CAGTAGACCA	CCAAGCCCCC	36100
TTCAGCCCAG	CTGTTTCCAC	CCCTGAACTT	AAGTGCCCAG	GAAGGCGTAT	
TGAGATGAGG	TGTGCTTGCT	GGAAGGCATG	CCTGCTGCTG	ATTGAAAACC	36200
GAAGTGGGAA	CATTCTTTCC	ATTCTGTGTC	CACTGGTCAG	CTGCTGCGGC	
TTTGGATGGT	CTTGACCGTG	GAAGGCTGAC	CTTCTTCTGG	TACCCGGAGT	36300
CCCTGCAGGA	ATCCCCCTTG	AGCTTGCTGG	GCTGTGGTGA	CAGGAGTTTA	
AAACATGCGT	TGTATTCCAG	TGATGCATGA	TATGACATGC	ATCACAGGAA	36400
TAAAAACCTG	AGGTCTCATG	GATATGATTG	CTTCAAAGGA	GACCAAGTTT	
TAAAAACAGAT	GAATCAAAAT	AAAGAAAAAT	ACTCAGTAAA	TCATCATAAA	36500
GTACAGAGAT	GTGGCCAAAG	GTGTGAAGGA	TGCAGCTGTA	AAAGCTGAAG	
TTTGAGGCCG	GGTGTGGTGG	TTCATGCCTA	TAATCCCAGC	ACTTTGGGAG	36600
GCCGAGCCCA	GCGGATCACC	GGAGGTCAGG	AGTTCGAGAC	CAGCCTGGAC	
AACATGGTAA	AACCCCGTCT	CTACTAAAAA	TACAAAAAAT	TAGTCTGGCA	36700
TGGTGGCAGG	CGCCTGTAAT	CCCAGCTACT	TGGGAGGCTG	AGGTAGGAGA	
ATGGCTTGAA	CCCAGGAGAA	GGAGGTTGCA	GTGAGCTTAG	ATCATGCTAC	36800
TGCCCTCCAG	CCTGGGCGAC	AGAGTGAGAT	TACGTCTCAA	AAAAATAAAA	
ATAAAATAAA	ATAAAAAGAT	TTTTTAAAAG	GCTGAAGTTT	GGGTACTTTT	36900
GGCTCATACA	CTTTGCCTTC	ACTGTAGAAA	GGTGGTTAGT	AAAGACCAGG	
CGCGGTGGCT	CATGCCTGGA	ATCCCAGCAC	TTTGGGAGCC	CAGCGCAGGC	37000
AGATCACTTG	AGCCCTGGGC	TATTGAGGCT	GCAGTGAGCT	GGGATTGTGC	
CACTGCACTC	CAGCCTGGGC	AACAGAGTGG	GACCCTGTCT	CAAAAAAGAA	37100
GAAAAAAAGG	GTAATTAATA	AACACTAAAG	TTCTATGTAG	AATTTTAGCA	
ACATTATTGT	TATTATAATC	TTCTTTGCTA	TGGCTCTGAA	TCTGTGTGGT	37200
GCTCCAGAAG	TATGCTATGG	AGGTTTTGTC	GACCAAAAAT	CTGGGTGGTG	
GCTGTGGTTT	GTAGGCCGGG	GCTGGGCTGG	GTGATGGGGG	AGTCACTGCA	37300

FIGURE 1C

10010302.110901

TAGATCCTCA	CATAGAGGCC	GCTTCTCCCG	CAGTGAAACC	CAGGGCCCCA	
		A			
[exon 6: 37334..					
GGAAACCTGA	CAGTTCACAC	CAATGTCTCC	GACACTCTGC	TGCTGACCTG	37400
GAGCAACCCG	TATCCCCCTG	ACAATTACCT	GTATAATCAT	CTCACCTATG	
CAGTCAACAT	TTGGAGTGAA	AACGACCCGG	CAGATGTGAG	TGGGCATGCT	37500
		T			
..37485]					
TTGACGTTTT	TCTGTGACCT	CTGGGGAACA	GGGTGGGTGA	CCAGCAGAGG	
CCCAGTCCCT	GGAGCCAGGA	GCCTGGGAGG	CAAGCCCTGG	GGCTGGATAG	37600
			T	A	
CAAATCCCAG	GAGCTAGAGA	CCTGGCTTCT	CACCTGGCTC	TGCCCTAGGC	
T				A	
AAGTCCCTTT	GCTTCCTGGC	CCCCACCCC	TCACATCAGA	GAAGGGGAGT	37700
		T			
TATCTCTGCA	TGCCGCTCCT	CCTCTGTAAA	GGTAGGGCTG	TGGGCCACAT	
CTGTGTTTCC	CAGTTTGGGG	GACACAAGTG	ATCGTAGGTG	GCACATTGAC	37800
AGCTCACTTG	AATAACCCTA	TTATTGAAGA	GAATAATACT	GACTCAAGAG	
ACAGTGACCC	GTGTCAGTTC	CCTTTTGAGG	CCAACGGGTT	AAGGAGGAAG	37900
TCCCCATACA	GCTGACTCGT	TTACTAATTC	CTCTTAATGA	AGAGAGCAGA	
GGCCACACCC	CAGGCTTAGA	CTTTCCCAAG	AAAACAAGAT	CAGTTTGTTC	38000
GTTGTTCCCC	ATGGAAGCTG	GTCCTGACAT	TCCCTTCACA	GTAGTGTTGG	
TGGAGTTTTT	GTTGTTGTTT	GTTTTGAGAC	AGAGTCTCAC	TCTGTCACCC	38100
AGGGTGGAAC	ACAGTGCGT	GATCTTGGCT	CACTGCAACC	TCCGCCTCCT	
GGGTTCTAGC	GATTCTCCTG	CCTCAGCCTC	CTGAGCAGCC	GGGACTACAG	38200
GCACCTGCCA	CCGTGCCCAG	CTAATTTTTG	TATATTTAGT	AGAGATGGGG	
TTTCACTGCG	TTGGCCAGGC	TGGTCTCAAA	CTCCTGACCT	CAGATGATCC	38300
ACTCGCCTTG	GCCTCCCAA	GTGCTGGGAT	TACAGGTGTG	AGCCACCGCA	
CCTGGCCAGT	GGAGTTCCTT	CTTAAGTACA	TGTATTGACA	TCTTTAAAAA	38400
GGGCGAGAGG	ATTTACAGGA	AACTATCAGG	TCAGTAATGG	CAGGGGCCGT	
CCACAGTGGG	TGGCTGAGTC	CCCCTATTTT	TCTGCTGGTG	TGCAGGGAGG	38500
TCATTTCCCTG	CCACCCATGT	TTCCCCACCC	TGAATCCACC	TTCTTCACAT	
TCCCATTTGGA	GGGACAATCT	CTGGACATAT	GGGACCTGGG	GTCCACAGG	38600
GCTGCAATCC	AATGCCTGCT	GTGCCACTCG	CCAGCTGTGT	GATGTTGGGC	
ATATCCCATA	ACCTCTTTGT	GCCTCAGTTT	CCTCATCTGT	AACACAGGAG	38700
TGACAAGAGC	ACCCGCCCAC	AGGGCTATGA	CAGTACAAGG	TGTGTGATAC	
AGATGAGCTC	CCCTGTTTGG	CCCACATGTG	TCCTAAAAGC	CATGTGCCCT	38800
TTCTCTTGAG	TGCCCCAGGC	CACAGAGATC	CCCATCTGCC	CGCTGTCCCA	
CACACTGGTC	TGTCATTTGT	TCCTTGAGGT	TTGTGAGGGC	CGGCTCTGTG	38900
CATCCCAGGG	GCCCAGGCTG	GGCCTGGTTG	GCTCTCAGGG	AGCAGGCACC	
CGCCACCTTA	AGTCCCATG	CTGGTGTCTG	TCACTGCTTC	CTCTCAATCT	39000
GGCCAAGCCA	GGGGTGTGCA	TTTATATCTC	TCAGGTCTGG	TTTCCCTTTT	
GGCACTGGGC	CAGGTATGGG	GAAAGAGCAG	GAATGGGGCA	GTTGGCTCAC	39100
ACAGCAGAGG	CTCAGAAAGC	GGGGGGCATG	GGGGGAAGGA	GTGCACAGAT	
GCTAGAGAGT	GGGGCAAGTT	TTGTTTGGTC	AATAAATCTC	CTTCTCATGC	39200
CCCAGGCCTG	TGCAAGACCT	ACAGAGAGTC	CCAAGGATGG	GCTGGGGGGA	
AGAGAAAGGT	ACCACCTTCA	GAGTCCAAAG	ATATGTTATT	TAATATTTTC	39300
ATATTTCTAG	ATCTGCCTTC	AGGCATGGCT	GGATCCAGCT	TCTAGGAACC	
TGTCCAGCTC	TGCGCCCTGC	TTTATTCTGT	ATTGGCTTCG	TTTTTAGGCA	39400
GGCTCTTCCC	TCATGTAGTG	GCAGATATGC	CTACTAGTTG	CTCCAGGCCT	
ACATCCCAAA	GCCACAGTGG	GAAAAGGGTT	TTTTTCTTTC	ACGGTTCTAA	39500
TAAGAGTCCT	AAGGCTGCTG	CTCAGTGGCC	TGGCTTCGAT	GCTGTGCCAG	
CCTCTGAACC	AATCACTGGC	TGTGGGTGGA	GAGAGGGTGC	TGGTGGAGGG	39600

FIGURE 1D

FIGURE 1E

A

```
..43562]
```

C

FIGURE 1F

9/15

GAAGCCGAAT	GAGGTCATTA	GCAGACCAGA	GGCTTTCCCG	CCCTTCCCCT	
TGGCAATCCC	AGCCTGGGGT	GGGCTTCTCT	GGGGTTGGTT	TCCTGTTTTT	50100
TTCCCTCCCC	TTGGGAGAAT	GACCCCTGGG	TCATCATCAC	TGTGTCATTC	
CCTGGGGAGG	TGCCAGTACC	AGGGCTAGAG	GCCAGAAGGA	GTGGAGGAAG	50200
GAGAGGGTGA	CAGGCTTTCT	GTGTCTTCTT	CTTAAGCATA	GGAAACTGCC	
CCCGAAGCAC	TAGCAAAATCC	CTTCCGGGTT	CTCATTGGCC	TGAAATGTAT	50300
CCCACCCCTA	AGCCAGGGGT	GGAGTCAGCT	TCCCCAAGGC	GATGGTCCTG	
TGGGTGAGTG	GGTGGGGTTT	GCCTGAGCAA	GATGAGAGTT	CTCTAGGTAG	50400
GAGAAAGGGG	GATTATAGGT	CCTGTCTAGA	AGAGAAGGTC	TGAGGGTCCT	
TGCTTTTCCA	GGGACTCTGG	AATCTAGTGT	TGGCTTTGAA	TCCTGACTCT	50500
GCCACTCACT	GGCAGTGTGG	ACTTGAGCAA	GTTGCTTAAT	TCTCTGAGCC	
TCAGTTTCCT	CTTGTGGGTT	ATAACAGTGT	TTACCTGGTA	GGACAGATAT	50600
TGGAATTTAT	TGAGACAATA	CATATAAAGT	GCATATTCCA	GCCTCTTGCA	
AATACCAAGT	GCCATTTATG	TATCAGTTAG	TGTTTGCTGT	GTAACAAATG	50700
ACCCCGAAAT	GTAGAGGGTT	ACAACAACCT	TATTTAGCTT	ATGCTTCTGC	
AGGCTGGCAT	TTGGGGCTGG	GCTCAGCAGT	GAGGGTGGCG	GGGGAGGCTG	50800
GGCTGGGCTG	GGCTGGGCAG	ATCTGAATTG	AGCTGACCCG	TCCCCGTAGC	
CTCCCTCCGT	GTCTGACAGT	TGGCTTTTTT	TTTTTTTTTC	TTTTTCTGAG	50900
ACGGAGTTTT	GCTCTTATTG	CCCAGGAGTG	CAATGGCATG	ATCTTGGCTC	
ACTGCAACCT	TGCCTCCTG	GGTTCAAGCA	ATTTTCTTGC	CTCAGCCTCC	51000
CAAGTAGCTG	GGATTACAGG	CATGTGCCAC	CACGCCAGGC	TAATTTTGTA	
TTTTTAATAG	AGATGGGGTT	TCTTCATGTT	GGTCAGGCTG	GTCTGGAAC	51100
CCTAATATCA	GATGATCCAC	CCACCTCAGC	CTCCCAAAGT	GCTGGGATTA	
CAGGCGTGAG	CCACTGCACC	CAGCCTAGTT	GGCTGACTTT	TACCTGGGAC	51200
AGTGCAGGTG	CCTGAGCCAT	GTGCCTCTCA	CTCTCCAGCA	GGCCGGCCCA	
GGCTTGTTTA	CAGAGTGGCT	CAGTTTTCAA	GGGTGGGAAG	TCCCAAGGCT	51300
TCTTGAGGCC	TAGGCGCAGC	ACTGGCATGA	TATCACTTCC	ATCACATTCT	
ATGGGGCCAA	GCAAGTCCCA	GGGCCAGTGT	AGATTCAAGG	GATGGGAGGA	51400
GATTCAAGAGC	ACTCCTCTGT	GGCCACTTTT	GCCATCGACC	ACAGTCCCTG	
TAAATATTAG	GACAATGTAA	TTAATTCCCA	GGAATCTGAG	GCTCAGAAAG	51500
CGTAAGTGAC	CTGTTGGACT	TCTGATCTGT	GTGATGTCGA	GGCTTGTAAC	
CCTTCCTGAG	CATTGCCGTA	CTCCAGGCCG	GGCTGCAAGG	CCACTCTGCT	51600
CTTTCATTGG	CTGTCTCTGT	ATTTTAGGGG	TCACAGTGGG	AGAAGCGGTC	
[exon 10: 51628..					
CCGAGGCCAG	GAACCAGCCA	AGTGCCCGTA	TGTATCTGAA	CTTAGGTCAC	51700
	..51677]				
AGCCTGCATG	CATTGGGAAG	GTGATAGAAT	TGGAGAGGCA	AGCCCCTAGC	
TCCATGTCTG	CCTTCTCTTC	CCTGCATTCG	GTAATTGCCC	TGTGACATTA	51800
GCCTTCAAGG	GACGGCAGGA	GGAGGGGTGT	TCTGGAAACG	TGGACTGCTG	
GCCAAGCCCC	CTGAGTTTCA	CTGGTGTGTC	AGGTACATGG	TGATACCCCT	51900
TGGGAGTGCT	GTTATAGTTA	ACAACCAGAG	CAGCCGTGCC	TGTTGTAA	
ATCTTGACCT	AATTGTATAC	TTGTCCGGCA	ATAGCCACTA	TCCTGAACAC	52000
TCCCCTCCTT	TTTTTTAATA	TACAGGATCT	CACTCTGTGG	CCCAGGCTGG	
TGTGCAGTGG	TGCGATCATA	GCTCACTGCA	CCTTCAAAC	CCTGAGCTCA	52100
AGTGATCCTC	CCATCTTAGC	CTCCCGAGTA	GCTGATACTA	CAGATGTGCA	
TTACCACGCC	TGGCTATTTT	AAAAGGTTTT	TGCCTGTAAT	TCCAGCTACT	52200
CAGGAGGCTG	AGGCATGAGA	ATCACTTGAA	CCCGGGAGGC	AGAGGTTGCA	
GTGAGCGCAG	ATTGTGCCAC	TGCACTCCAG	CCTGGGCGAC	AGAGTGAGAC	52300
TCTTGTCTCA	AAAAAATAA	TACCAAAAAA	AGTTTTTGTA	AAGACAAGCT	
CTCGCTGTGT	TGCCCCGCCA	CTGTGGCCTC	CTTAGCTTCT	TCCCTGGGGC	52400
CTGCTGGACC	TTTCCATACT	CCAGAACTA	AAGGGGGTCC	AGGACCCTGC	
TTCAACCCTA	GGATCCCGCA	TCTTTTTTTT	TTTTTTTTTT	TTTTGGACGC	52500
AGGGTCTTGC	TGTGTCCCTC	AGGCTGGAGT	GCAGTGATTC	ACTGCAGCCT	
CAAACCTCGT	GGCTCAAGTG	ATTCTCTAGC	CTCAGCCTTC	TAAGTAGCTG	52600

FIGURE 1I

10070302 "110901

FIGURE 1G

AAGGGGGACC AGGATAAGGC TCTCCAAGGA GGGAAAATTT GAGGGGGGCC 47500
 CTGACTGGGG AGAATGAGCT GGCCAGGGAT AAGCAAGATG GAGTCATCCC
 ACATCCCCTT ACAACACTGG GTGCCCTGGG AACTGGGGGC ATTTGGGGGC 47600
 ATGTGGTAGG AGCCAGAGGA ATTTGCGACG ATTGCCCTGA TGGAGTCAGG
 AGACCTGGGT TTGAATCCTG GCCTTGAGAGC TTGGTAGCTG GCGGCCGACA 47700
 AGTTGCTGAA ACCCCTGAGC CTGGGGTTCC TGCTTTGCAG AGTGACAGTG
 ATGGTGAGAA CATATTTTCAT CAGCCAGAAG AGGCCAAATC ACAGTAAAGG 47800
 CTGAGGGAGG AGATGAGTGG CGAGTGGCTG GGAGGTGGTG GAAGGAGCCT
 CGTTTCCAGA GAGCTCTTGC CAGCCCTTGG AATCATGGTG TCTCAGAGCC 47900
 TCAGTCTCC CATCTCTGAA ATGGGACTAG CAAGCTCAAC CTCACTAAGT
 CAGGATTAGA GGTGGCTAAG GATTATTAAC ATGATTGATG AAAGTGCCCA
 CTCTTGGCCC AGCACACACT AGGTAGGCAG GGAATGCAAA TTCCCCTCCA 48000
 TATCTTGTCAT CTGATGCCTC CGAGCAACCT TGGACTGATC GCCTTGCTCT
 GAGCCTCAGT TTCCCCATCA CCTGTACCTC TTCCCACTCC CCATCACTAT 48100
 ATCCCAGCAT GCCAGCCTCT TTGCTGTTCT TTGTCTTTGG TTTCTTGTTT
 TGTTCTGTTT TTTAGACAGG GTCTCACTCT GTTAGCCAGG CTGAAGTGCA 48200
 GTGGCGCGGT TACGGCTCAC TGCAGCCTCC AATTCCTGGG CTAAAGAGAT
 CCTCCCATTT CAACTTCCAG AGCAGCTGGG ACAACAGGCG CTTGCCACCA 48300
 CACCTGGCTA ATTTTCTTAT TTTAATTTAA TTTTATTTTA TTTTTTGGGA
 CAGAGTGGAG TCTCAAAAAC CAAGCTAGAG TGCAGTGGTG CGATCTCGAC 48400
 TCACTGCAAT CTCTGCCTCC CGGGTTCAAG CGATTCTCCT GCCTTAGCCT
 CCCGACTAGC TGGGATTACA GGCCTGTGCC ACGACACCCA GCTAATTTTT 48500
 GTATTTTTAG TAGAGATGGG GTTTCACCAT GTTGCCAGG ATGGTCTTGA
 ACTCCTGACC TCAAGTGATC CACCCACCTC GTTCTCCCAA GGTGCTGGGT 48600
 ACAGGCATGA GCCACTGTGC CTGGCCAATT TTCTTACATT TTGTAGAGAC
 TGGCTGTCAC TTATGTAGCC CAGGCTGATC TTGAACCTCT ACCCCTTTAT 48700
 CTTTATTCAT GGCACTTATT ACCATGAATG AATGACCTCA TATAAGCATT
 TCTTTCGTTT TTTTTTTTTT TTCTTTGAGA TGGAGTCTCA TGTTGTCCCC 48800
 CAGGCTGGAG TGCAGTGGCG CGATCTCAGC TCACTGCAAC CTCCGCCTTC
 CGGGTTCAAG CGATTCTCCT GCCTCAGCCT CCTGAGTAGC TGGGATTGCA 48900
 GGCGCCTGCC ACCATGCCTG GCTAAGTTTT GCATTTTTAG TAGAGACGGT
 GTTTCACCAT ATTGGCCAGG CTGGTCTCGA ACTTCTGACC TCAGGTGATA 49000
 CACCTGCCTT GGCCTCCCAA AGTGCTGGGA TTACAGGCGT GAGCCGCCAT
 GCCTGGCCTC ATATAAGCAT TTCTGTCTCC ATTTATCATC CATCTTTCCC 49100
 TCTTGAAGGT CAGTTTCACC AAGGCAGGCA TCTTTGTCTC GTTCACTGTT
 GTAGCCTCAG GGCCAGGCAC AGTGAGTCAA ACATAGAAGG TGCTCAATAA 49200
 ATATGTGTTT ATTTATTGAA ACCATGGGCA GAGGCTAATT CAGAAGCGGT
 CTGAGGACCT TACCTCCCAG TGATGATGCA CCATGGCCCC AGGCAGGCCA 49300
 GGAAGAGAGA AGGGTTGTGT TTCTCCGTAG GTCCCCCAGC TTCCCAGGCC
 ATCCCAGGCC ATTCCCTGGT CATTTGCCCT CAGCTGCTCT GAAAAAGGGA 49400
 TTGTTGAGGG GAACCTAGAA TCCTCTCTCT GCAGTTTGAG TCTTTCCTAA
 TCCCCTGGGG TCTCATTCCC ACTGAGGACA TAGGTGGCCT CCTCAGGAAC 49500
 TCTGTGCTGG GTAACAGAAT GCGGGAGTGT GAACCTGGCT CTGCCACCTA
 CCAGCTGTCA CTCCACCTCC TTGGGCCTCA CTCTCCTCAT CTGTAGAATA 49600
 GGGTTAGCAA TAGAATCCAT GTCACCAGGT TAGAATGATG AGTCAGTGGT
 TTGACCTCCA GAACTAATC AGCCTGATCT CTGATGCCAA ATAAGTATTG 49700
 GTGATAACGA CCACTTTTAT GGGAGGAGCG TTCACCTGTC AATAATTGAG
 AGATCAACAC CTTTTCTTTT TGTTTTTCAG GATTAAGAAA GAATGGTGGG 49800
 [exon 9: 49781..
 ATCAGATTCC CAACCCAGCC CGCAGCCGCC TCGTGGCTAT AATAATCCAG
 GATGCTCAGG TAGGAGTAGG CGTGGATGAG GACATGTGGG ACTGTGTACA 49900
 ..49859]
 TGAAGAAGTG TGGTTCAGAA CACCTGGGCT GTTAAGGACC TTCCTGGCT
 TCTGGAATGG CAAATAGACA GTCAGGAGGG TTGCAGGGGA GACAGAGGCA 50000

FIGURE 1H

10/15

GGACTACAGT	CATACACCAA	CATGCCCAGC	TAATTTTCCT	TTTTTTTAAT	
TCTTGTAGAG	ATGTTTGAGA	CGGCTTGGGC	TCTGTTGCCC	AGGCTGTTCT	52700
CAAACCTCCTG	AGCTCAAGCG	ATCCTCCCTC	CTCAGCCTCC	TAAAGTGCTG	
GGATTACAGG	CGTGAGCCAC	CGCACCCGGC	TTCCATATCC	TTTCTAATTG	52800
GTCATGGCTT	GGGATAATGG	TGTTGCTTTT	AATTATCATC	ATCCATAAAG	
ACTTTTTCTT	ACTCAACAGA	TCTGAGCTTG	TATTTGGTGC	CCAGGACATG	52900
TGCTGGGTTT	CCGAAATCCC	AAAGACACAG	ACCCTACCCT	CAGGGATTTT	
TCATTCTAGC	AACATAGACT	GATCAATTAC	TGATTATAAC	GTTAGAAGGC	53000
ATGTCTGAAG	TAGACAGCCA	TCAGGACATG	GTGATTTTCT	GCTGGGCTTT	
C					
GAAGAATGAA	TAGGAGTTTT	TCAAGTGTCG	AAACTGAACC	CTGACCAACC	53100
				T	
TTTGCTTTTG	CAGACACTGG	AAGAATTGTC	TTACCAAGCT	CTTGCCCTGT	
[exon 11: 53114..					
TTTCTGGAGC	ACAACATGAA	AAGGGATGAA	GATCCTCACA	AGGCTGCCAA	53200
C					
AGAGATGCCT	TTCCAGGGCT	CTGGAAAATC	AGCATGGTGC	CCAGTGGAGA	
TCAGCAAGAC	AGTCTCTGG	CCAGAGAGCA	TCAGCGTGGT	GCGATGTGTG	53300
GAGTTGTTTG	AGGCCCGGT	GGAGTGTGAG	GAGGAGGAGG	AGGTAGAGGA	
AGAAAAGGG	AGCTTCTGTG	CATCGCCTGA	GAGCAGCAGG	GATGACTTCC	53400
AGGAGGGAAG	GGAGGGCATT	GTGGCCCGGC	TAACAGAGAG	CCTGTTCTTG	
C					
GACCTGCTCG	GAGAGGAGAA	TGGGGGCTTT	TGCCAGCAGG	ACATGGGGGA	53500
T					
GTCATGCCTT	CTTCCACCTT	CGGGAAGTAC	GAGTGCTCAC	ATGCCCTGGG	
C T	C				
ATGAGTTCCC	AAGTGCAGGG	CCCAAGGAGG	CACCTCCCTG	GGGCAAGGAG	53600
CAGCCTCTCC	ACCTGGAGCC	AAGTCCTCCT	GCCAGCCCGA	CCCAGAGTCC	
AGACAACCTG	ACTTGCACAG	AGACGCCCTT	CGTCATCGCA	GGCAACCCTG	53700
CTTACCGCAG	CTTCAGCAAC	TCCCTGAGCC	AGTCACCGTG	TCCCAGAGAG	
C					
CTGGGTCCAG	ACCCACTGCT	GGCCAGACAC	CTGGAGGAAG	TAGAACCCGA	53800
GATGCCCTGT	GTCCCCCAGC	TCTCTGAGCC	AACCACTGTG	CCCCAACCTG	
AGCCAGAAAC	CTGGGAGCAG	ATCCTCCGCC	GAAATGTCCT	CCAGCATGGG	53900
GCAGCTGCAG	CCCCCGTCTC	GGCCCCCACC	AGTGGCTATC	AGGAGTTTGT	
T				G A	
ACATGCGGTG	GAGCAGGGTG	GCACCCAGGC	CAGTGCGGTG	GTGGGCTTGG	54000
GTCCCCCAGG	AGAGGCTGGT	TACAAGGCCT	TCTCAAGCCT	GCTTGCCAGC	
AGTGCTGTGT	CCCCAGAGAA	ATGTGGGTTT	GGGGCTAGCA	GTGGGGAAGA	54100
GGGGTATAAG	CCTTTCCAAG	ACCTCATTCC	TGGCTGCCCT	GGGGACCCTG	
CCCCAGTCCC	TGTCCCCTTG	TTCACCTTTG	GACTGGACAG	GGAGCCACCT	54200
CGCAGTCCGC	AGAGCTCACA	TCTCCCAAGC	AGCTCCCCAG	AGCACCTGGG	
T					
TCTGGAGCCG	GGGGAAAAGG	TAGAGGACAT	GCCAAAGCCC	CCACTTCCCC	54300
AGGAGCAGGC	CACAGACCCC	CTTGTGGACA	GCCTGGGCAG	TGGCATTGTC	
TACTCAGCCC	TTACCTGCCA	CCTGTGCGGC	CACCTGAAAC	AGTGTCATGG	54400
CCAGGAGGAT	GGTGGCCAGA	CCCCTGTCAT	GGCCAGTCCT	TGCTGTGGCT	
GCTGCTGTGG	AGACAGGTCC	TCGCCCCCTA	CAACCCCCCT	GAGGGCCCCA	54500
G					
GACCCCTCTC	CAGGTGGGGT	TCCACTGGAG	GCCAGTCTGT	GTCCGGCCTC	
CCTGGCACCC	TCGGGCATCT	CAGAGAAGAG	TAAATCCTCA	TCATCCTTCC	54600
ATCCTGCCCC	TGGCAATGCT	CAGAGCTCAA	GCCAGACCCC	CAAAATCGTG	
C					

FIGURE 1J

10010802.10901

11/15

AACTTTGTCT CCGTGGGACC CACATACATG AGGGTCTCTT AGGTGCATGT 54700
C C

..54692

CCTCTTGTTG CTGAGTCTGC AGATGAGGAC TAGGGCTTAT CCATGCCTGG
T

GAAATGCCAC CTCCTGGAAG GCAGCCAGGC TGGCAGATTT CCAAAGACT 54800
G

TGAAGAACCA TGGTATGAAG GTGATTGGCC CCACTGACGT TGGCCTAACA
CTGGGCTGCA GAGACTGGAC CCCGCCAGC ATTGGGCTGG GCTCGCCACA 54900

TCCCATGAGA GTAGAGGGCA CTGGGTCGCC GTGCCCCACG GCAGGCCCCCT
GCAGGAAAAC TGAGGCCCTT GGGCACCTCG ACTTGTGAAC GAGTTGTTGG 55000

CTGCTCCCTC CACAGCTTCT GCAGCAGACT GTCCCTGTTG TAACTGCCCA
AGGCATGTTT TGCCCACCAG ATCATGGCCC ACATGGAGGC CCACCTGCCT 55100
G

CTGTCTCACT GAACTAGAAG CCGAGCCTAG AAATAACAC AGCCATCAAG
A

GGAATGACTT GGGCGGCCCTT GGGAAATCGA TGAGAAATTG AACTTCAGGG 55200
AGGGTGGTCA TTGCCTAGAG GTGCTCATTC ATTTAACAGA GCTTCCTTAG

GTTGATGCTG GAGGCAGAAT CCCGGCTGTC AAGGGGTGTT CAGTTAAGGG 55300
GAGCAACAGA GGACATGAAA AATTGCTGTG ACTAAAGCAG GGACAATTTG
A

CTGCCAAACA CCCATGCCCA GCTGTATGGC TGGGGGCTCC TCGTATGCAT 55400
GGAACCCCCA GAATAAATAT GCTCAGCCAC CCTGTGGGCC GGGCAATCCA
T

GACAGCAGGC ATAAGGCACC AGTTACCCTG CATGTTGGCC CAGACCTCAG 55500
GTGCTAGGGA AGGCGGGAAC CTTGGGTTGA GTAATGCTCG TCTGTGTGTT
T

TTAGTTTCAT CACCTGTTAT CTGTGTTTGC TGAGGAGAGT GGAACAGAAG 55600
GGGTGGAGTT TTGTATAAAT AAAGTTTCTT TGTCTCTTTA TTTTTTATGT

ATTAACCAA CATACTCCA GACACTGCTG TGAGTGCTGT GTCTCTGTTA 55700
ACTCCTGGAA TTCACCCATC CAGAGGAACC AGGATGCAAG AGGTTAAGAA

ACTTGCCGTC TGGGTTTGGG TTCCCCATAC AAGGATTCAA ATAGTTGATT 55800
A

TAGGAAGTAA TCCCGGGAAG CCCTGCTAAG GTAGTGGGGA ACTGAGGCAG
GGAAGGACAC AAACCAAGAA AGTGTTACCT GAAAGGGGTC CAGATGCAGA 55900
CCCCAAAAGA GGGTTCTTGA ATCTCATGCA AGAAAGAATT CAGAGCGAGT

CCATAGAGTC AGTGAAAGCA AGTTAATGAG GAAAGTAAAG GAATAAAAGA 56000
ATGGCTACTC CGTAGACAGA GCAGCCCTGA GGGTTGCTGG CTGCCTATTT

TTATGGTTAT TGATTAATTA TATTCCAAAC AAGGGGTGGA TTATTATGCC 56100
TCCCTTTTAG ACCATATAGG GTAACCTCCT GATGTTGCCA TGGCATTGTT

AAACTGTCAT GGCCTGTTG GGAGTGTAGC AGTGAGGACA ACCAGAGGTC 56200
ACTCTTGTTG CCATCTTGGT TTTGGTGGGT TAGAGCCATC TTCTTTACTG

CAACCTGTTT TATCAGCAAG GTCTTTATGA CTTGTATCGG TGACGACCTC 56300
CTGTCTCATT CTATGACTAA GAATGCCCTA ACCTCCCAGG AATGCAGCCC

AGTAAGTCTC AGCCTCATTT TACCCAGCCC CTCTTCAAAG CTCCAGTTTA 56400
AATAAACCTC TGACAAAAGG GTGAGTTATT CAACAGATTA CCAGCATGAG

TAACTGATGC TTACCTGCCG GGGATCTCTG GAAGACCATG CATGGCACAT 56500
GCCCAGTTAT GCCTGCAAAG GAGAGGGAGC TGGGGTATTT GTCCACCAGC

TCCCATCTGT CATTGGCTGA GAGCTGCTTC CAGGAGCATT AATTCTCCAG 56600
CACTTCCAGC TACTCCAGGA AAAAAAAAT TCTTCAACTG AGAGTTGGAG

GTGTTGAGAG ACTCTGGCAC ACCAAGAAGA CAGGAACAGG ACACCAACAG 56700
TGGCTGATGA TACACTGCCA AGGTCACACA GCTAGTTAGC AACAGATCTA

TAGTGGAATC CAGACAGTGT CTCCATCACC CAGGCTCTCT GTAGTGATCT 56800
CGCCTTCACA TCCGAGGCAG GCAGAGGGAT GGTGTGGGCC TTAGATGGGA

FIGURE 1K

10010802.110901

THE UNIVERSITY OF CHICAGO

FIGURE 1L

POLYMORPHISMS IN THE CODING SEQUENCE OF IL4R α

ATGGGGTGGC	TTTGCTCTGG	GCTCCTGTTC	CCTGTGAGCT	GCCTGGTCCT	
GCTGCAGGTG	GCAAGCTCTG	GGAACATGAA	GGTCTTGCAG	GAGCCCACCT	100
GCGTCTCCGA	CTACATGAGC	ATCTCTACTT	GCGAGTGGAA	GATGAATGGT	
CCCACCAATT	GCAGCACC GA	GCTCCGCCTG	TTGTACCAGC	TGGTTTTTCT	200
GCTCTCCGAA	GCCCACACGT	GTATCCCTGA	GAACAACGGA	GGCGCGGGGT	
		G	T	A	
GCGTGTGCCA	CCTGCTCATG	GATGACGTGG	TCAGTGCGGA	TAAC TATA CA	300
				C	
CTGGACCTGT	GGGCTGGGCA	GCAGCTGCTG	TGGAAGGGCT	CCTTCAAGCC	
CAGCGAGCAT	GTGAAACCCA	GGGCCCCAGG	AAACCTGACA	GTTCACACCA	400
ATGTCTCCGA	CACTCTGCTG	CTGACCTGGA	GCAACCCGTA	TCCCCCTGAC	
AATTACCTGT	ATAATCATCT	CACCTATGCA	GTCAACATTT	GGAGTGA AAA	500
CGACCCGGCA	GATTTTCAGAA	TCTATAACGT	GACCTACCTA	GAACCCTCCC	
T					
TCCGCATCGC	AGCCAGCACC	CTGAAGTCTG	GGATTTCTTA	CAGGGCACGG	600
A					
GTGAGGGCCT	GGGCTCAGTG	CTATAACACC	ACCTGGAGTG	AGTGGAGCCC	
CAGCACCAAG	TGGCACA ACT	CCTACAGGGA	GCCCTTCGAG	CAGCACCTCC	700
TGCTGGGCGT	CAGCGTTTCC	TGCATTGTCA	TCCTGGCCGT	CTGCCTGTTG	
TGCTATGTCA	GCATCACCAA	GATTAAGAAA	GAATGGTGGG	ATCAGATTCC	800
CAACCCAGCC	CGCAGCCGCC	TCGTGGCTAT	AATAATCCAG	GATGCTCAGG	
GGTCACAGTG	GGAGAAGCGG	TCCCGAGGCC	AGGAACCAGC	CAAGTGCCCA	900
CACTGGAAGA	ATTGTCTTAC	CAAGCTCTTG	CCCTGTTTTT	TGGAGCACAA	
			C		
CATGAAAAGG	GATGAAGATC	CTCACAAGGC	TGCCAAAGAG	ATGCCTTTCC	1000
AGGGCTCTGG	AAAATCAGCA	TGGTGCC CAG	TGGAGATCAG	CAAGACAGTC	
CTCTGGCCAG	AGAGCATCAG	CGTGGTGCGA	TGTGTGGAGT	TGTTTGAGGC	1100
CCCGGTGGAG	TGTGAGGAGG	AGGAGGAGGT	AGAGGAAGAA	AAAGGGAGCT	
TCTGTGCATC	GCCTGAGAGC	AGCAGGGATG	ACTTCCAGGA	GGGAAGGGAG	1200
				C	
GGCATTGTGG	CCCGGCTAAC	AGAGAGCCTG	TTCCTGGACC	TGCTCGGAGA	
				T	
GGAGAATGGG	GGCTTTTGCC	AGCAGGACAT	GGGGGAGTCA	TGCCTTCTTC	1300
				C T C	
CACCTTCGGG	AAGTACGAGT	GCTCACATGC	CCTGGGATGA	GTTCCCAAGT	
GCAGGGCCCA	AGGAGGCACC	TCCCTGGGGC	AAGGAGCAGC	CTCTCCACCT	1400
GGAGCCAAAGT	CCTCCTGCCA	GCCCGACCCA	GAGTCCAGAC	AACCTGACTT	
GCACAGAGAC	GCCCCTCGTC	ATCGCAGGCA	ACCCTGCTTA	CCGCAGCTTC	1500
AGCAACTCCC	TGAGCCAGTC	ACCGTGTCCC	AGAGAGCTGG	GTCCAGACCC	
	C				
ACTGCTGGCC	AGACACCTGG	AGGAAGTAGA	ACCCGAGATG	CCCTGTGTCC	1600
CCCAGCTCTC	TGAGCCAACC	ACTGTGCCCC	AACCTGAGCC	AGAAACCTGG	
GAGCAGATCC	TCCGCCGAAA	TGTCCTCCAG	CATGGGGCAG	CTGCAGCCCC	1700
CGTCTCGGCC	CCCACCAGTG	GCTATCAGGA	GTTTGTACAT	GCGGTGGAGC	
		G	A		
AGGGTGGCAC	CCAGGCCAGT	GCGGTGGTGG	GCTTGGGTCC	CCCAGGAGAG	1800
GCTGGTTACA	AGGCCTTCTC	AAGCCTGCTT	GCCAGCAGTG	CTGTGTCCCC	
AGAGAAATGT	GGGTTTGGGG	CTAGCAGTGG	GGAAGAGGGG	TATAAGCCTT	1900
TCCAAGACCT	CATTCTGGC	TGCCCTGGGG	ACCCTGCCCC	AGTCCCTGTC	
CCCTTGTTCA	CCTTTGGACT	GGACAGGGAG	CCACCTCGCA	GTCCGCAGAG	2000

FIGURE 2A

10010002 110004

14/15

CTCACATCTC	CCAAGCAGCT	CCCCAGAGCA	CCTGGGTCTG	GAGCCGGGGG	
		T			
AAAAGGTAGA	GGACATGCCA	AAGCCCCCAC	TTCCCCAGGA	GCAGGCCACA	2100
GACCCCTTG	TGGACAGCCT	GGGCAGTGGC	ATTGTCTACT	CAGCCCTTAC	
CTGCCACCTG	TGCGGCCACC	TGAAACAGTG	TCATGGCCAG	GAGGATGGTG	2200
GCCAGACCCC	TGTCATGGCC	AGTCCTTGCT	GTGGCTGCTG	CTGTGGAGAC	
AGGTCCTCGC	CCCCTACAAC	CCCCCTGAGG	GCCCCAGACC	CCTCTCCAGG	2300
	G				
TGGGGTTCCA	CTGGAGGCCA	GTCTGTGTCC	GGCCTCCCTG	GCACCCTCGG	
GCATCTCAGA	GAAGAGTAAA	TCCTCATCAT	CCTTCCATCC	TGCCCCTGGC	2400
			C		
AATGCTCAGA	GCTCAAGCCA	GACCCCCAAA	ATCGTGAAC	TTGTCTCCGT	
GGGACCCACA	TACATGAGGG	TCTCTT			2476

FIGURE 2B

10010802.10001

ISOFORMS OF THE IL4R α PROTEIN

MGWLCSGLLF	PVSCLVLLQV	ASSGNMKVLQ	EPTCVSDYMS	ISTCEWKMNG	100
PTNCSTELRL	LYQLVFLLE	AHTCIPENNG	GAGCVCHLLM	DDVVSADNYT	
		V	T		
LDLWAGQQLL	WKGSEKPEH	VKPRAPGNLT	VHTNVSDTLL	LTWSNPYPDP	200
NYLYNHLTYA	VNIWSENDPA	DFRIYNVTYL	EPRLRIAAS	LKSGISYRAR	
			H		
VRAWAQCYNT	TWSEWSPSTK	WHNSYREPFE	QHLLLGVSVS	CIVILAVCLL	300
CYVSITKIKK	EWWDQIPNPA	RSRLVAIIIQ	DAQSQWEKR	SRGQEPKCP	
HWKNCLTKLL	PCFLEHNMKR	DEDPHKAKE	MPFQSGKSA	WCPVEISKTV	400
LWPESISVVR	CVELFEAPVE	CEEEEEVEEE	KGSFCASPES	SRDDFQEGRE	
				A	
GIVARLTESTL	FLDLLGEENG	GFCQQDMGES	CLLPPSGSTS	AHMPWDEFPS	500
			R		
AGPKEAPPWG	KEQPLHLEPS	PPASPTQSPD	NLTCTETPLV	IAGNPAYRSF	600
SNSLSQSPCP	RELGPDPPLA	RHLEEEPEM	PCVPQLSEPT	TVPQPEPETW	
P					
EQILRRNVLQ	HGAAAAPVSA	PTSGYQEFVH	AVEQGGTQAS	AVVGLGPPGE	700
		R I			
AGYKAFSSLL	ASSAVSPEKC	GFGASSGEEG	YKPFQDLIPG	CPGDPAPVPV	800
PLFTFGLDRE	PPRSPQSSHL	PSSSPEHLGL	EPGEKVEDMP	KPPLPQEQAT	
		S			
DPLVDSLGS	IVYSALTCHL	CGHLKQCHGQ	EDGGQTPVMA	SPCCGCCCGD	900
RSSPPTTPLR	APDPSPGGVP	LEASLCPASL	APSGISEKSK	SSSSFHPAPG	
A					
NAQSSSQTPK	IVNFVSVGPT	YMRVS			825

FIGURE 3